

REMARKS

Claims 1-18 and 22-25 are currently pending in the application. Claims 1, 7 and 10 have been amended and claims 22-25 have been added. Support for new claims 22-24 can be found at paragraphs [0024] and [0033] of the instant published patent application No. 2005/0082616. No new matter has been added. Reconsideration of the rejected claims in view of the following remarks is respectfully requested.

Allowable Claims

Applicants appreciate the indication that claim 7 contains allowable subject matter. Accordingly, as Applicants are presenting this claim in independent form, Applicants request that at least claim 7 be indicated to be allowed. Furthermore, Applicants submit that all of the claims are in condition for allowance for the following reasons.

35 U.S.C. §102 Rejection

Claims 1-4, 8-12, 14, 16 and 17 were rejected under 35 U.S.C. §102(e) over US Patent No. 6,774,409 to BABA et al. The rejection is respectfully traversed.

In order to establish a *prima facie* case of anticipation under 35 U.S.C. § 102, a single prior art reference must disclose each and every element as set forth in the subject claim. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). Applicants respectfully submit that a *prima facie* case of anticipation cannot be established because BABA fails to teach each and every element of the claims.

More particularly, independent claim 1 recites, *inter alia*,

after the pFET stack is formed, providing a first layer of material at source/drain regions associated with the pFET stack, the first layer of material having a lattice constant different than a base lattice constant of the substrate to create a compressive state within the pFET channel; and
after the nFET stack is formed, providing a second layer of material at the source/drain regions associated with the nFET stack, the second layer of material having a lattice constant different than the base lattice constant of the substrate to create a tensile state at the nFET channel.

Additionally, independent claim 10 recites, *inter alia*,

after the pFET stack is formed, forming a first material with a lattice constant different than a base lattice constant of the substrate in the regions of the pFET structure to provide a compressive stress in the pFET channel;
after the nFET stack is formed, forming a second material with a lattice constant different than the base lattice constant of the substrate in the regions of the nFET structure to provide a tensile stress in the nFET channel.

Applicants submit that BABA does not disclose or even suggest at least these features. Applicants acknowledge that BABA discloses the forming of an SiGe layer 4 and a carbon Si film 5 on a substrate which will support nFET and pFET devices (see Figs. 1(a) – 1(d)). Applicants also acknowledge that BABA discloses that the layers 4 and 5 can have different lattice constants than the substrate and that the layer 4 can form compression in the pFET and that the layer 5 can form strain distortion in the nFET (see col. 6, lines 39-67). However, Applicants submit that BABA does not disclose, or even suggest, that the layers 4 and 5 are formed after the pFET and nFET stacks are formed. To the contrary, Figs. 1a-1d clearly show that the layers 4 and 5 are formed or grown before to the formation of the pFET and nFET stacks.

Thus, Applicants respectfully submit that independent claims 1 and 10, as well as claims 2-4, 8, 9, 11, 12, 14, 16 and 17, which depend from claims 1 and 10 are allowable.

Accordingly, Applicants respectfully request that the above-noted rejection under 35 U.S.C. § 102(e) should be withdrawn.

35 U.S.C. §103 Rejection

Claims 1-6, 8, 10-13 and 15-18 were rejected under 35 U.S.C. §103(a) over US Patent Application Publication No. 2005/0035470 to KO et al. in view of US Patent Application Publication No. 2003/0080361 to MURTHY et al. The rejection is respectfully traversed.

Applicants submit that this basis of rejection is improper at least because KO is not prior art. As the Examiner knows, Applicants have established, by Rule 1.131 Declaration, an effective filing date in the previous response of at least June 17, 2003. On the other hand, KO was filed in the US on August 12, 2003, i.e., after June 17, 2003. Thus, regardless of what KO and MURTHY discloses or suggests, KO does not qualify as prior art under 35 U.S.C. § 102 and the instant rejection is therefore improper.

Accordingly, Applicants respectfully request that the above-noted §103(a) rejection of claims 1-6, 8, 10-13 and 15-18 be withdrawn.

Comments on Reasons for Allowance

In response to the Statement of Reasons for Allowance set forth in the Office Action, Applicants wish to clarify the record with respect to the basis for the patentability

of the indicated claim in the present application. In this regard, while Applicant does not disagree with the Examiner's indication that certain identified features are not disclosed by the references, Applicants submit that the allowed claim in the present application recites a combination of features, and that the basis for patentability of this claim is based on the totality of the recited features.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 09-0458.

Respectfully submitted,
Haujie CHEN, *et al.*

A stylized, handwritten signature in black ink, appearing to read 'Andrew M. Calderon'.

Andrew M. Calderon
Reg. No. 38,093

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GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191